

PN - RO90071 A 19860830  
 TI - PROCEDE DE RECUPERATION DU PALLADIUM DE L'ARGENT ET DU CUIVRE DE DECHETS D'ALLIAGES  
 PA - INST DE CHIMIE (RO)  
 IN - PERTE EUGENIA;CEUCA OLGA;CRUCINOVIDIUGHIARA COSMINA;MARC MARIA;PACURARU LUCIA  
 AP - RO19840115666 19840907  
 PR - RO19840115666 19840907  
 DT - 1

AN - 1987-048121 [07]  
 TI - Palladium, silver and copper recovery from alloy waste - by cementing nitrate soln. with metallic copper, pptn. and recovery of silver and palladium and treatment of copper nitrate  
 AB - RO-90071 Highly pure Pd and Ag are sep'd. quantitatively by the cementation, using metallic Cu, of the nitrate solns. obtd. by the repeated dissolution of the waste with HNO<sub>3</sub> 1:1, concn. and setting to pH 1-1.5. The ppt., formed of Ag and Pd black, is filtered, washed and dissolved, in conc. HNO<sub>3</sub>. The nitrate soln. obtd. is diluted with twice-distilled water and heated. Dil. HCl is added to ppt., the Ag chloride, which is cooled, filtered, washed and reduced with hydrazine hydrate in the presence of NaOH. The pptd. Ag is filtered, washed free from chloride, re-dissolved in conc. HNO<sub>3</sub> and diluted with water. Ag chloride is re-pptd. and reduced to Ag, washed with twice-distilled water, dried, fused and cast in water to form Ag granules. The filtrate from Ag sepn., contg. Pd and common elements, is evaporated to a viscous mass, converted to chlorides by treating with HCl, dissolved in twice-distilled water and set to pH 1-1.8. The soln. formed is passed over an ion exchanger column filled with strongly acidic cationite, in proton form, to retain the common elements. The Pd-contg. effluent is evaporated to a viscous mass, diluted with twice-distilled water, and Pd is pptd. with hydrazine hydrate in the presence of 30% NaOH, at pH 8-9. The Pd black obtd. is filtered, washed, dried and calcined in A. Highly pure Pd sponge is obtd. After filtering the ppt. of Ag and Pd from cementation, the Cu nitrate soln. is conc., treated with conc. H<sub>2</sub>SO<sub>4</sub>, evaporated to min. vol. until blue crystals appear, cooled with mixing, filtered, washed, dried in vacuo. CuSO<sub>4</sub>.5H<sub>2</sub>O is obtd. Alternatively, the Cu nitrate soln. from filtration is evaporated to a viscous mass to eliminate excess HNO<sub>3</sub>, diluted and admixed with hydrazine hydrate. Cu is pptd. in the presence of 30% NaOH. The ppt. is filtered, washed, dried and introduced to the cementation process.  
 IW - PALLADIUM SILVER COPPER RECOVER ALLOY WASTE CEMENTED NITRATE SOLUTION METALLIC COPPER PRECIPITATION  
 RECOVER SILVER PALLADIUM TREAT COPPER NITRATE  
 PN - RO90071 A 19860830 DW198707 000pp  
 IC - C22B11/04  
 MC - M25-B01 M25-E M25-G08 M25-G20  
 DC - M25  
 PA - (CHCL-N) INST CHIM CLUJ-NAPO  
 IN - CEUCA O; CRUSCIN O; GHIARA C; MARC M; PERTE E  
 AP - RO19840115666 19840907  
 PR - RO19840115666 19840907  
 OPD - 1984-09-07  
 ORD - 1986-08-30